

REMARKS

The present amendment is submitted in response to the Office Action mailed July 23, 2008. Claims 6-20 remain in this application. Claims 6 and 11 have been amended. In view of the amendments above and the remarks to follow, reconsideration and allowance of this application are respectfully requested.

Allowable Subject Matter

Applicants wish to thank the Examiner for indicating that claim 20 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Rejections under 35 U.S.C. §103(a)

Claims 6-19 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,891,854 ("Zhang") in view of applicant's admitted prior art (APA). The Applicants respectfully traverse the rejections.

The invention provides an apparatus and a method for streaming real time data from a storage medium which overcomes the limitations associated with **the limited read out bandwidth of storage media**. Zhang is silent in this regard. In contrast to the invention, Zhang, solves a different problem in a different manner. More particularly, Zhang is directed to schemes to ensure lossless transmission of bit streams containing pre-compressed video signals within the communication channels. The schemes herein comprises a rate conversion system that converts the bit rate of a pre-compressed video bit stream from one bit rate to another, and that is integrated with a digital communication channel, and to convey the maximum channel transmission rate to the rate conversion system to allow satisfactory transmission of the bit stream from the input of the rate converter through the transmission facility. *See* Zhang, Abstract.

One critical difference between Zhang and the invention is that Zhang is directed to adapting the bit-rate of pre-compressed video streams to the bandwidth of the transmission channel. In contrast to Zhang, the invention is directed to **streaming real-time data from a storage medium** which overcomes limitations associated with reading simultaneous streams given the bandwidth limitations of the storage medium and the read out device, such as the maximum readout rate of the read out device. In other words, The invention solves the bottleneck problem that occurs at the earliest point in the transmission chain. Specifically, as the data is being streamed from the storage medium.

Zhang is not concerned with the limitations introduced and resolved by the invention, namely, limitations imposed by streaming real-time data from the storage medium, but is instead concerned with how re-encoding should take place to reduce the bit-rate of the streams, once the streams have already been output from the storage medium so as to match the maximum bandwidth of the transmission channel. Hence, a different problem with a different solution.

In the Response to Arguments section (page 3) of the most recent Office Action of July 23, 2008, the Examiner states, *“even if assuming that the claims explicitly state that the readout device is an optical disc reader, applying Zhang’s teachings would have been obvious as the data rate adjustments performed in Zhang are **in front of the readout device**, effectively matching the rate to that of the bandwidth of the device.”* Applicants respectfully disagree that Zhang’s teaching would have been obvious. Applicants submit that the data rate adjustments performed by the inventive method and apparatus are not obvious because the data rate adjustments performed according to the invention operate on a different principle to resolve a different problem than what is taught in Zhang. It is important to recognize that the data rate adjustment solutions provided by Zhang, namely, re-encoding is **not a viable solution for solving the bottleneck problem associated with streaming real-time data from a storage medium.** The bottleneck problem is resolved by the invention via a system and method in which a selection module, coupled to a read-out device, takes into account three criteria (i.e., three inputs) for selecting a compression format for each data stream to be read from the storage

medium. The three criteria include (1) initiating commands received from one or more applications, wherein said initiating commands initiate at least two data streams stored on said storage medium and further indicate a demanded resolution, (2) coding format information retrieved from said storage medium, and (3) a maximum read-out data rate supported by said data readout device (i.e., the maximum bandwidth of the read-out device). This distinction is presently recited in the independent claims.

Claims 6-19 are allowable

The cited portions of Zhang do not disclose or suggest, retrieving, at said selection module, a maximum read-out data rate supported by said data readout device, from said data read-out device, wherein said maximum read-out data rate corresponds to a maximum bandwidth of the readout device, and selecting a compression format at said selection module for each data stream on the basis of three criteria: (1) said received commands from said one or more applications, (2) said retrieved information regarding coding formats from said storage medium, and (3) said maximum read-out data rate retrieved from and supported by said data readout device so that a collective data rate of the sum of data streams does not exceed said maximum read-out data rate supported by said data readout device, as recited in independent claims 6 and 11 (Emphasis Added). Instead, Zhang describes a system that adapts the bitrate of two video streams to the bandwidth of the transmission channel from an apparatus to a remote application (e.g., a WiFi link). *See* Zhang, Fig. 2a. The system comprises a compression unit 252, a bit rate converter 202, a transmission system 204 and an optional data formatting unit 258 (if data beyond video data is being transmitted). The compression unit 252 receives video data and other data and produces a compressed bit stream. The compressed video stream is supplied to the input of the bit rate converter 202. The bit rate converter 202 advantageously adjust the bit rate to match the bandwidth of the transmission system 204. The output of the bit rate converter 202 is provided to the transmission system 204 which formats the data and transmits it over a physical channel. *See* Zhang, col. 6, lines 28 – 63. It is respectfully submitted that performing bit rate

conversions on a supplied compressed video stream is different than selecting a compression format based on the three criteria defined above.

Thus, the cited portions of Zhang do not disclose or suggest "retrieving, at said selection module, a maximum read-out data rate supported by said data readout device, from said data read-out device, wherein said maximum read-out data rate corresponds to a maximum bandwidth of the readout device, and selecting a compression format at said selection module for each data stream on the basis of three criteria: (1) said received commands from said one or more applications, (2) said retrieved information regarding coding formats from said storage medium, and (3) said maximum read-out data rate retrieved from and supported by said data readout device so that a collective data rate of the sum of data streams does not exceed said maximum read-out data rate supported by said data readout device", as recited in claims 6 and 11. Hence, claims 6 and 11 are allowable.

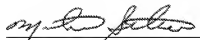
Claims 7-10 and 12-20 depend from claims 6 and 11, respectively, which Applicants have shown to be allowable. Hence, the cited portions of Zhang fail to disclose or suggest at least one element of each of claims 7-10 and 12-20. Accordingly, claims 7-10 and 12-20 are also allowable, at least by virtue of their dependence from claims 6 and 11, respectively.

Conclusion

In view of the foregoing amendments and remarks, it is respectfully submitted that all claims presently pending in the application, namely, Claims 6 – 20 are believed to be in condition for allowance and patentably distinguishable over the art of record.

If the Examiner should have any questions concerning this communication or feels that an interview would be helpful, the Examiner is requested to call Mike Belk, Esq., Intellectual Property Counsel, Philips Electronics North America, at 914-945-6000.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Michael A. Scaturro", is written over a horizontal line.

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